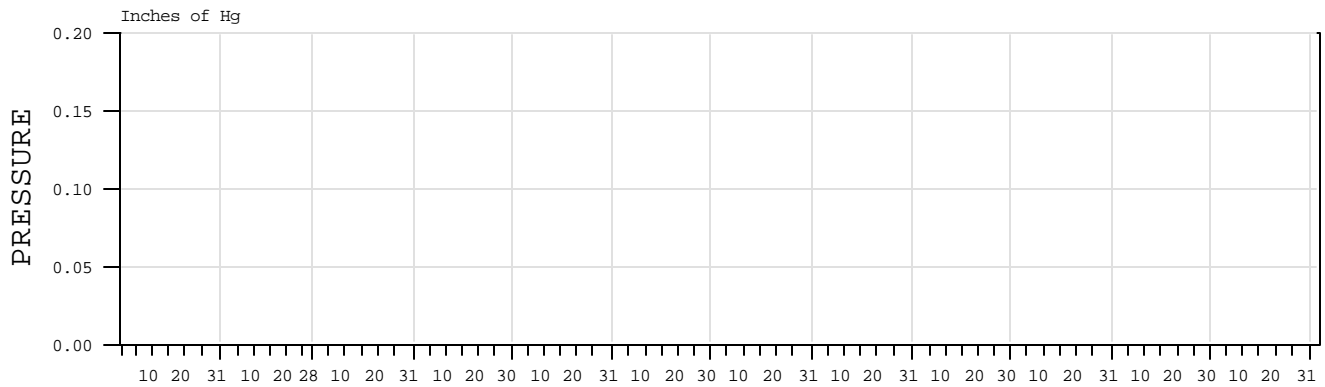
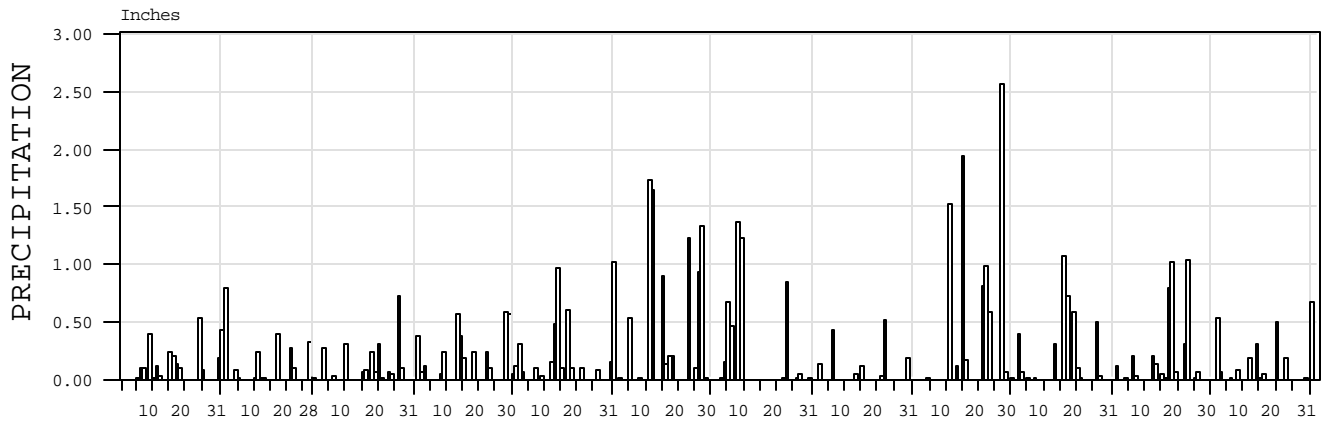
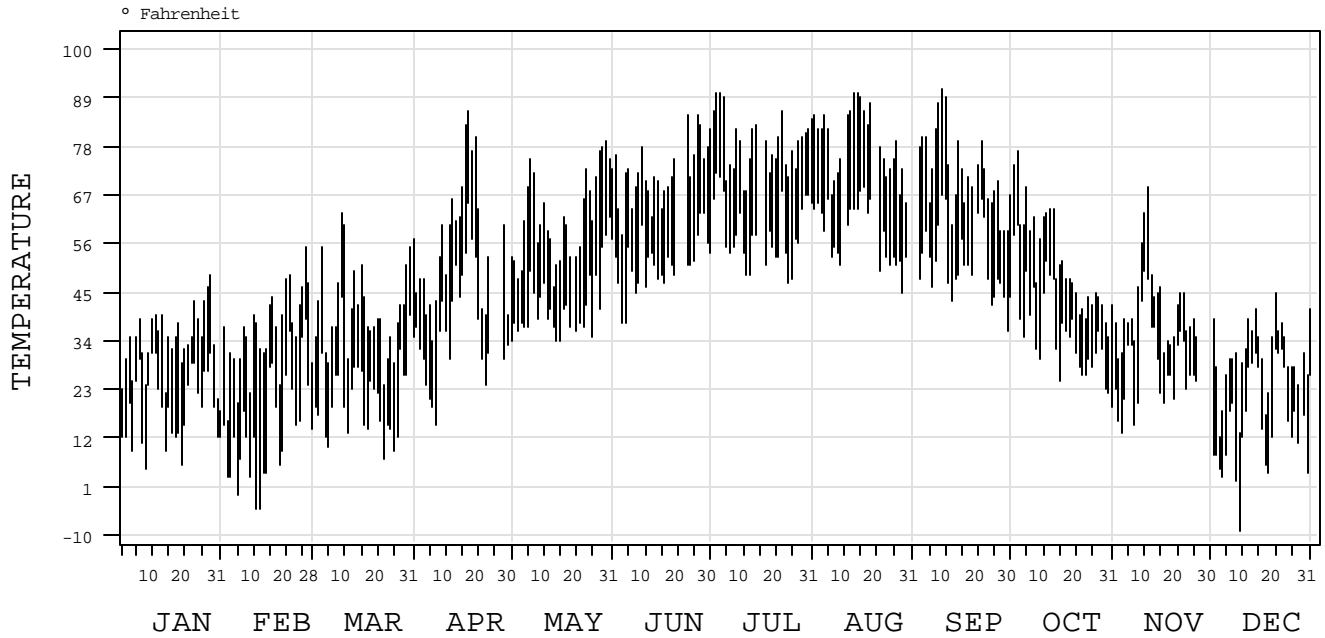


2002

LOCAL CLIMATOLOGICAL DATA

Annual Summary with Comparative Data
Westford
Daily Data



METEOROLOGICAL DATA FOR 2002

Westford

Latitude: 44° 37' 39" N Longitude: 73° 02' 29" W Elevation (Ground): 850 feet Time Zone: Eastern

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
TEMPERATURE													
Average													
-Daily Maximum	33.7	36.0	41.5	56.0	62.6	72.2	78.6	79.0	72.3	51.9	41.5	30.1	54.6
-Daily Minimum	19.0	14.4	21.7	36.9	42.5	51.2	58.4	58.3	51.6	36.2	28.3	15.7	36.2
-Monthly	26.4	25.2	31.6	46.5	52.5	61.7	68.5	68.6	61.9	44.0	34.9	22.9	45.4
-Monthly Dew Point	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extremes													
-Highest	49.0	55.0	63.0	86.0	79.0	85.0	90.0	90.0	91.0	77.0	69.0	45.0	91.0
-Date	28	26	9	17	29	23	2	13	9	2	11	20	SEP 9
-Lowest	5.0	-4.0	7.0	15.0	34.0	38.0	47.0	45.0	36.0	19.0	13.0	-9.0	-9.0
-Date	8	11	22	7	14	3	24	28	29	31	3	9	DEC 9
DEGREE DAYS BASE 65°F													
Heating	1206	1122	1044	504	388	123	30	38	148	662	790	1270	7325
Cooling	0	0	0	16	7	30	125	128	55	4	0	0	365
SUNSHINE INDEX													
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NUMBER OF DAYS													
Sunrise to Sunset													
-Clear	31	28	31	26	30	27	29	26	28	31	26	30	343
-Partly Cloudy	0	0	0	0	0	0	0	0	0	0	0	0	0
-Cloudy	0	0	0	0	0	0	0	0	0	0	0	0	0
Precipitation													
.01 inches or more	19	12	15	14	18	15	11	9	11	13	17	14	168
Snow, Ice pellets													
1.0 inches or more	10	5	6	2	0	0	0	0	0	0	3	5	31
Thunderstorms													
	0	0	0	1	2	4	7	4	3	1	0	0	22
Heavy Fog, visibility													
¼ mile or less	0	0	0	0	0	0	0	0	0	0	0	0	0
TEMPERATURE:													
-Maximum													
90°F and above	0	0	0	0	0	0	2	2	1	0	0	0	5
32°F and below	12	11	6	0	0	0	0	0	0	0	3	19	51
-Minimum													
32°F and below	31	25	28	11	0	0	0	0	0	15	16	30	156
0°F and below	0	3	0	0	0	0	0	0	0	0	0	1	4
PRESSURE													
Average													
-Monthly	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Extremes													
-Highest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-Date	1	1	1	1	1	1	1	1	2	1	1	1	JAN 1
-Lowest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-Date	1	1	1	1	1	1	1	1	2	1	1	1	JAN 1
RELATIVE HUMIDITY (%)													
Average													
-Monthly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Local Time													
Hour 01	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour 07	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour 19	0	0	0	0	0	0	0	0	0	0	0	0	0
PRECIPITATION													
Water Equivalent													
-Total	2.80	2.35	2.46	3.79	4.49	9.09	4.92	1.54	8.87	3.97	4.21	2.69	51.18
-Greatest (24 hrs)	0.54	0.80	0.73	0.59	1.03	1.73	1.38	0.52	2.57	1.08	1.05	0.67	2.57
-Date	24	1	26	28	31	11	8	22	27	16	23	31	SEP 27
Snow, Ice pellets													
-Total	30.0	17.1	20.0	5.0	T	0.0	0.0	0.0	0.0	T	20.5	15.4	108.0
-Greatest (day)	4.3	4.7	6.2	3.0	T	0.0	0.0	0.0	0.0	T	9.8	5.4	9.8
-Date	31	17	26	22	14	1	1	1	1	16	18	2	NOV 18
WIND													
Resultant													
-Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
-Speed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Speed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum One-minute													
Average													
-Direction	N	N	N	N	N	N	N	N	N	N	N	N	N
-Speed	0	0	0	0	0	0	0	0	0	0	0	0	0
-Date	1	1	1	1	1	1	1	1	2	1	1	1	JAN 1
Peak Gust													
-Direction	N	N	N	N	N	N	N	N	N	N	N	N	N
-Speed	0	0	0	0	0	0	0	0	0	0	0	0	0
-Date	1	1	1	1	1	1	1	1	2	1	1	1	JAN 1

MEANS AND EXTREMES*

Westford

Latitude: 44° 37' 39" N Longitude: 73° 02' 29" W Elevation (Ground): 850 feet Time Zone: Eastern

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
TEMPERATURE													
Average													
-Daily Maximum	29.4	34.6	40.7	54.1	67.7	77.7	80.0	78.6	69.3	55.9	43.2	33.8	55.4
-Daily Minimum	9.7	13.2	20.3	32.6	43.3	53.4	57.1	55.8	48.2	37.5	29.0	18.0	34.8
-Monthly	19.5	23.9	30.5	43.3	55.5	65.5	68.5	67.2	58.7	46.7	36.1	25.9	45.1
-Monthly Dew Point	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extremes													
-Record Highest	59.0	59.0	76.0	86.0	88.0	100.0	103.0	98.0	91.0	77.0	72.0	63.0	103.0
-Year	1996	1999	1998	2002	1998	1995	1995	1995	2002	2001	1996	1998	JUL 1995
-Record Lowest	-29.0	-13.0	-8.0	12.0	27.0	35.0	43.0	38.0	25.0	19.0	0.0	-11.0	-29.0
-Year	1997	1996	1997	1997	1997	2001	2000	1995	2000	2002	2000	1998	JAN 1997
MEAN DEGREE DAYS													
Heating (base 65°F)	1391	1110	1067	611	298	67	24	41	209	551	842	1178	7387
Cooling (base 65°F)	0	0	0	2	9	78	112	98	25	1	0	0	325
MEAN SUNSHINE INDEX													
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEAN NUMBER OF DAYS													
Sunrise to Sunset													
-Clear	30.4	26.9	30.7	27.7	29.4	27.0	27.0	29.1	28.5	29.6	28.9	29.9	345.1
-Partly Cloudy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Cloudy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Precipitation ≥ .01"													
Snow, Ice plts. ≥ 1.0"	18.0	12.6	14.9	12.1	16.0	12.8	14.0	11.5	13.4	14.1	17.8	16.9	173.9
Thunderstorms	11.0	6.6	7.0	2.6	0.3	0.0	0.0	0.0	0.0	0.3	5.9	9.4	42.9
Heavy Fog, vis. ≤ ¼ mi	0.0	0.1	0.6	0.7	3.4	4.3	6.1	4.3	1.4	0.6	0.3	0.0	21.7
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
TEMPERATURE:													
-Maximum													
90°F and above	0.0	0.0	0.0	0.0	0.0	2.0	2.1	2.3	0.3	0.0	0.0	0.0	6.6
32°F and below	16.0	9.6	5.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.0	13.3	47.8
-Minimum													
32°F and below	29.4	24.7	26.4	15.0	2.6	0.0	0.0	0.0	0.6	10.4	18.4	26.9	154.4
0°F and below	9.0	6.3	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.6	20.0
PRESSURE													
Average													
-Monthly	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Extremes													
-Record Highest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-Year	1996	1996	1996	1996	1996	1995	1995	1995	1995	1995	1995	1995	JUN 1995
-Record Lowest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-Year	1996	1996	1996	1996	1996	1995	1995	1995	1995	1995	1995	1995	JUN 1995
RELATIVE HUMIDITY (%)													
Average													
-Monthly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Local Time													
Hour 01	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour 07	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour 19	0	0	0	0	0	0	0	0	0	0	0	0	0
PRECIPITATION													
Water Equivalent													
-Mean	3.59	2.14	3.04	2.79	3.78	4.32	5.27	4.80	4.82	3.51	3.54	3.10	44.71
-Maximum Monthly	6.88	3.16	4.84	6.05	7.29	12.15	7.65	10.18	8.87	6.48	4.41	5.13	12.15
-Year	1998	2000	2001	2000	2000	1998	1996	1995	2002	1995	1997	1996	JUN 1998
-Minimum Monthly	1.98	0.96	1.05	0.00	0.00	0.00	3.24	1.54	1.65	2.04	2.11	1.32	0.00
-Year	2001	1999	1996				2000	2002	2001	1997	1998	1998	
-Greatest (24 hrs)	2.85	0.95	1.23	1.34	2.33	3.08	2.58	6.05	2.65	1.42	1.56	2.24	6.05
-Year	1998	2000	2001	2000	2000	1998	1996	1995	1999	1995	1995	1996	AUG 1995
Snow, Ice pellets													
-Mean	27.5	15.0	22.6	7.9	0.3	0.0	0.0	0.0	0.0	1.3	12.6	23.3	170.4
-Maximum Monthly	34.3	23.5	41.6	21.7	2.2	0.0	0.0	0.0	0.0	4.7	20.5	46.0	46.0
-Year	1999	2000	2001	1996	1996	1995	1995	1995	1995	1997	2002	1995	DEC 1995
-Minimum Monthly	15.5	9.8	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.5	0.0
-Year	1996	1999	2000	1999	1997	1995	1995	1995	1995	1996	1998	1999	JUN 1995
-Greatest (day)	11.0	9.2	14.0	13.4	2.0	0.0	0.0	0.0	0.0	4.1	9.8	15.0	15.0
-Year	2000	2000	2001	2000	1996	1995	1995	1995	1995	2000	2002	1997	DEC 1997
WIND													
Resultant													
-Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
-Speed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Speed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum One-minute													
Average													
-Direction	N	N	N	N	N	N	N	N	N	N	N	N	N
-Speed	0	0	0	0	0	0	0	0	0	0	0	0	0
-Year	1996	1996	1996	1996	1996	1995	1995	1995	1995	1995	1995	1995	JUN 1995
Peak Gust													
-Direction	N	N	N	N	N	N	N	N	N	N	N	N	N
-Speed	0	0	0	0	0	0	0	0	0	0	0	0	0
-Year	1996	1996	1996	1996	1996	1995	1995	1995	1995	1995	1995	1995	JUN 1995

* Length of record: June 1995 to December 2002

Westford

PRECIPITATION (inches)

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Annual
1995						1.36	3.92	10.18	3.15	6.48	4.24	3.39	32.72
1996	3.86	2.22	1.05	6.03	5.01	3.88	7.65	2.63	3.64	3.88	4.15	5.13	49.13
1997	2.05	1.82	3.34	0.00	0.00	0.00	6.06	5.47	4.28	2.04	4.41	3.78	33.25
1998	6.88	2.22	3.78	2.24	3.22	12.15	7.25	6.20	5.64	3.03	2.11	1.32	56.04
1999	4.61	0.96	2.79	0.76	3.83	2.95	5.07	2.80	8.33	3.82	3.35	1.73	41.00
2000	2.92	3.16	3.01	6.05	7.29	2.94	3.24	3.48	3.04	2.48	3.16	4.43	45.20
2001	1.98	2.27	4.84	0.65	2.63	2.20	4.04	6.07	1.65	2.39	2.72	2.35	33.79
2002	2.80	2.35	2.46	3.79	4.49	9.09	4.92	1.54	8.87	3.97	4.21	2.69	51.18

SNOWFALL (inches)

Year	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
1994-95												0.0	0.0
1995-96	0.0	0.0	0.0	0.1	13.9	46.0	15.5	15.3	13.0	21.7	2.2	0.0	127.7
1996-97	0.0	0.0	0.0	0.0	19.8	15.0	31.9	11.2	24.2	9.8	0.0	0.0	111.9
1997-98	0.0	0.0	0.0	4.7	17.3	40.9	21.9	9.9	24.6	0.2	0.0	0.0	119.5
1998-99	0.0	0.0	0.0	0.0	2.0	7.6	34.3	9.8	25.2	0.0	0.0	0.0	78.9
1999-00	0.0	0.0	0.0	0.0	10.3	2.5	27.8	23.5	9.3	18.9	0.0	0.0	92.3
2000-01	0.0	0.0	0.0	4.3	13.4	40.8	30.9	18.4	41.6	0.0	0.0	0.0	149.4
2001-02	0.0	0.0	0.0	0.9	3.3	17.8	30.0	17.1	20.0	5.0	0.0	0.0	94.1
2002-03	0.0	0.0	0.0	0.0	20.5	15.4							

Westford

TEMPERATURE °F

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Annual
1995						69.5	74.0	70.9	56.3	51.1	33.4	19.6	53.5
1996	15.9	19.8	27.3	41.4	53.0	65.3	67.2	66.8	59.9	45.2	32.0	32.2	43.8
1997	18.0	25.6	27.1	41.1	50.4	65.0	66.8	64.1	56.7	44.6	33.4	23.0	43.0
1998	21.5	27.4	33.4	45.0	60.7	66.1	68.3	66.1	59.0	47.6	38.2	30.9	47.0
1999	18.6	24.0	30.4	44.3	57.9	68.2	71.5	65.3	61.5	44.1	40.4	27.3	46.1
2000	16.4	22.9	35.5	41.8	55.8	62.9	65.6	65.5	55.2	47.4	36.0	18.8	43.6
2001	20.0	22.6	28.4	43.1	58.2	65.4	66.3	70.1	59.6	49.6	40.5	32.6	46.4
2002	26.4	25.2	31.6	46.5	52.5	61.7	68.5	68.6	61.9	44.0	34.9	22.9	45.4

HEATING DEGREE DAYS: Base 65°F

Year	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
1994-95												33	33
1995-96	0	13	262	424	954	1416	1528	1320	1177	665	391	47	8197
1996-97	18	31	180	542	998	1027	1463	1112	1181	652	445	59	7708
1997-98	44	67	265	639	893	1227	1224	1060	954	588	158	69	7188
1998-99	13	53	196	528	784	1032	1444	1154	1049	588	212	46	7099
1999-00	12	50	169	657	696	1139	1466	1147	923	634	299	99	7291
2000-01	45	58	260	537	877	1395	1403	852	1143	643	190	62	7465
2001-02	27	19	189	422	743	917	1206	1122	1044	504	388	123	6704
2002-03	30	38	148	662	790	1270							

Westford

COOLING DEGREE DAYS: Base 65°F

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
1995						160	248	182	9	0	0	0	599
1996	0	0	0	0	10	52	74	78	23	0	0	0	237
1997	0	0	0	0	0	53	90	36	7	0	0	0	186
1998	0	0	0	0	16	93	92	78	14	0	0	0	293
1999	0	0	0	0	15	132	164	52	56	0	0	0	419
2000	0	0	0	0	7	40	54	64	8	0	0	0	173
2001	0	0	0	0	6	67	52	164	27	1	0	0	317
2002	0	0	0	16	7	30	125	128	55	4	0	0	365

STATION LOCATION AND INSTRUMENTATION
Westford

Location	Occupied from	Occupied to	Latitude North	Longitude West	Elevation Above (ft)						
					Sea Level	Ground					
						Wind	Sun	Temp	Humidity	Rain	Barometer
22 Penny Ln Westford, VT 05494	Aug. 2001	Present	44° 37' 39"	73° 02' 29"	850	12	0	5	5	5	5

INSTRUMENTATION DETAIL

Units are: Temperature=°F, Wind=mph, Pressure=inches Hg, Precipitation=inches.

Davis VantagePro.

Wind:

Electronic sensors:

Instantaneous speed to 125 mph and direction to nearest 7°, greater of 2 mph or ±5%.

Temperature:

Electronic sensor: -40° to 140°F, ±1°F.

Humidity:

Electronic sensor: 0 to 100% RH, ±3%.

Barometer:

Electronic sensor: 26.00 to 32.00 inches Hg, ±0.05".

Rainfall:

4-inch diameter electronic tipping bucket rain gauge. Resolution 0.01", ±4%.

Sunshine:

Not recorded.

Snow, ice pellets, glaze and other meteorological phenomenon not recorded by the Weather Computer are manually observed and recorded in the station record.

OBSERVER NOTES